DISCUSSION OF THE AMENDMENT

Claim 4 has been amended by incorporating the subject matter of Claim 17 therein; Claim 17 has been canceled. A spelling error has been corrected in Claim 20.

No new matter is believed to have been added by the above amendment. Claims 4-16 and 18-23 are now pending in the application.

REMARKS

The rejection of Claims 4-7, 9-17, 19-21 and 23 under 35 U.S.C. § 103(a) as unpatentable over US 6,468,500 (Sakaguchi et al) in view of US 4,959,268 (Hagiwara et al), is respectfully traversed.

As recited in above-amended Claim 4, an embodiment of the present invention is a method comprising deodorizing in the presence of a deodorant comprising crystalline aluminosilicate particles, wherein the aluminosilicate particles have a composition of:

$$\mathbf{s}\ M(1)_xO_y\bullet\mathbf{t}\ M(2)_2O\bullet Al_2O_3\bullet\mathbf{u}\ SiO_2\bullet\mathbf{v}\ R_mQ_n\bullet\mathbf{w}\ H_2O,$$

wherein M(1) is one or more members selected from the group consisting of Ag, Cu, Zn and Fe, M(2) is one or more members selected from the group consisting of Na, K and H, R is one or more members selected from the group consisting of Na, K, Ca and Mg, Q is one or more members selected from the group consisting of CO_3, SO_4, NO_3, and Cl, **s** satisfies $0 < \mathbf{s} \leq 3$, and **t** satisfies $0 \leq \mathbf{t} \leq 3$, with proviso that **s** + **t** is from 0.5 to 3, and **u** satisfies $0.5 \leq \mathbf{u} \leq 6$, **v** satisfies $0 < \mathbf{v} \leq 2$, **w** satisfies $\mathbf{w} \geq 0$, **x** satisfies $1 \leq \mathbf{x} \leq 2$, **y** satisfies $1 \leq \mathbf{y} \leq 3$, **m** satisfies $1 \leq \mathbf{m} \leq 2$, and **n** satisfies $1 \leq \mathbf{n} \leq 3$, and wherein the aluminosilicate particle has a specific surface area of 1 m^2/g or more and less than 70 m^2/g.

Sakaguchi et al discloses an aluminosilicate in an acicular form, a platy form, or a columnar form and having the composition represented by:

$$aM_2O.bAl_2O_3.cSiO_2.dR_mA_n.yH_2O,$$

wherein M is at least one of Na and K; R is one or more elements selected from the group consisting of Na, K, Ca and Mg; A is one or more members selected from the group consisting of CO_3, SO_4, NO_3, OH and Cl; a is from 1 to 6; b is from 2 to 8; c is from 2 to 12; d is from 0 to 4; m is from 1 to 2; n is from 1 to 3; and y is from 0 to 32 (paragraph bridging columns 1 and 2), which aluminosilicate can be used for detergent builders, oil-absorbing agents, polishing agents, scrubbing agents, absorbents, filter media, fillers or the like (column

1, lines 9-13 and column 4, lines 53-67). The aluminosilicate may have various shapes, such as spherical (column 2, line 62) or cancrinite (column 3, line 14), and an average particle size of from 0.1 to 500 μm (column 3, lines 24-26).

Acknowledging that the aluminosilicate of Sakaguchi et al does not contain Ag, Cu, Zn or Fe, the Examiner relies on Hagiwara et al. Hagiwara et al discloses that it is long well known that silver, copper and zinc ions have an antibacterial action (column 1, lines 15-16). Hagiwara et al is drawn to a polymer containing amorphous aluminosilicate (AMAS) particles, at least some of the particles stabling holding metal ions having a bactericidal action on ion-exchangeable sites on and within the particles (column 2, lines 20-27), wherein preferable examples of bactericidal metal ions include silver, copper, zinc, mercury, tin, lead, bismuth, cadmium and chromium ions (column 3, lines 29-31). The AMAS particles have a specific surface area of at least 5 m^2/g (column 4, lines 40-42). Hagiwara et al discloses making their AMAS particles, having the formula $x\frac{M_2}{n}O.Al_2O_3.ySiO_2$, wherein M is one of the above-referenced bactericidal metals, by exchanging an amount of the metal M for an amount of Na in the amorphous aluminosilicate having the formula $xNa_2O.Al_2O_3.ySiO_2$. Hagiwara et al additionally discloses that their bactericidal polymer may contain a substance having a different function so that a composite function consisting of the disclosed bactericidal function and another function may be exhibited; examples of such functional substances include activated charcoal, silica gel, zeolite and alumina; the use of these functional substances in combination with the bactericidal polymer enables the deodorizing and absorbing effects and moisture-absorption effect to be intensified (column 13, lines 20-29).

The Examiner holds that it would have been obvious to one of ordinary skill in the art to use an ion exchange process in order to convert Sakaguchi et al's aluminosilicate to one

containing, for example, an antibacterial metal such as Ag, Cu or Zn of Hagiwara et al, and to use the resultant aluminosilicate in a deodorization method.

In reply, it is only with the present disclosure as a guide that one of ordinary skill in the art would have combined Sakaguchi et al with Hagiwara et al, but even if combined, the result would still not be the presently-claimed invention. Hagiwara et al does **not** disclose or suggest that their antibacterial amorphous aluminosilicate solid particles *per se* (or their polymer containing the particles) have deodorizing action. Rather, as discussed above, Hagiwara et al disclose such action only when their inventive polymer is used with a substance having a different function. Indeed, activated charcoal, which is listed as an example of such a functional substance, is well-known as having deodorizing properties. Nor can it be assumed that antibacterial action results in deodorizing action. While some odors may be caused by the presence of bacteria, not all odors are, and not all bactericidal materials have deodorizing capability. In addition, Hagiwara et al limits their aluminosilicate particles to amorphous particles. Sakaguchi et al is limited to crystalline particles. The Examiner has provided no nexus for, in effect, equating the action of bactericidal metals in such different structures. Note that Sakaguchi et al discloses many utilities; deodorization is not one of them.

Claim 16, drawn to the method using aluminosilicate particles having a cancrinite shape is separately patentable, as such shape is neither disclosed nor suggested by any of the applied prior art.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 8 and 22 under 35 U.S.C. § 103(a) as unpatentable over Sakaguchi et al in view of Hagiwara et al, and in further view of US 5,861,146 (Peterson et al), is respectfully traversed. The disclosures and deficiencies of Sakaguchi et al and Hagiwara et al have been discussed above. Peterson et al does not remedy these deficiencies.

Peterson et al is relied on for a disclosure that body odors are commonly sulfur-containing (column 1, lines 4-15). The Examiner holds that it would have been obvious to use the aluminosilicate particles obtained by combining Sakaguchi et al and Hagiwara et al to treat sulfur-containing body odors.

In reply, even if it were obvious in view of Sakaguchi et al and Hagiwara et al in combination to treat odors generally (and Applicants have shown above why it would not have been obvious), nevertheless, those odors would be limited to those caused by bacteria. There is no disclosure by the applied prior art that sulfur-containing body odors are caused by bacterial action, nor has the Examiner established that the presence of the antibacterial metals disclosed by Hagiwara et al would have an effect on such odors.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claim 18 under 35 U.S.C. § 103(a) as unpatentable over Sakaguchi et al in view of Hagiwara et al, and in further view of US 5,883,035 (Yang), is respectfully traversed. Yang discloses a method for manufacturing mesoporous particulate silico-aluminate from calcium bentonite clay minerals containing octahedral and tetrahedral aluminum in the framework of the mineral, which process comprises mixing the calcium bentonite mineral with sufficient acid to leach substantially all of the octahedral aluminum while leaving at least a predominating amount of the tetrahedral aluminum (column 2, lines 31-39). The Examiner finds that Yang discloses acid treatment to increase the surface area of aluminosilicates.

In reply, Yang does not remedy any of the above-discussed deficiencies in the combination of Sakaguchi et al and Hagiwara et al. Indeed, Yang is essentially irrelevant. There does not appear to be any problem in the combination of Sakaguchi et al and Hagiwara et al that requires leaching octahedral aluminum while leaving tetrahedral aluminum. Accordingly, it is respectfully requested that this rejection be withdrawn.

Applicants respectfully traverse the finality of the Office Action. The Examiner finds that the Amendment filed September 24, 2008, "add[s] active method steps" to the claims and thus, "the claims are now examinable on [the] merits." The Examiner uses this as justification for making the Office Action "Final."

Original Claim 4 recited "[a] method of using an aluminosilicate particle for deodorization, wherein the aluminosilicate particle ...." While the Examiner finds that the claim was indefinite because "there are no active steps in the language" and "no indication of *how* the particle is used" (Examiner's emphasis), the finding is irrelevant as to the issue of whether this claim (as well as dependent Claims 5 and 6 thereof) was well examinable on the merits. The Examiner could have and should have searched and examined these claims on the merits since Applicant's discovery was clear, i.e., that the recited aluminosilicate particle had deodorizing capability. Indeed, the Examiner's approach is inconsistent with both M.P.E.P. § 702.01 and § 704.01. As prescribed therein, even in obvious informal cases, which the present application clearly is not, a reasonable search should still be made of the invention. It does not appear that any search was made, since no prior art was cited in the first Office Action. It is highly prejudicial in this application to apply prior art for the first time on claimed subject matter which could have been applied in the first Office Action. Accordingly, it is respectfully requested that the present amendment be entered as a matter of right, and that the finality of the Office Action be withdrawn.

Applicants respectfully submit that the present application is in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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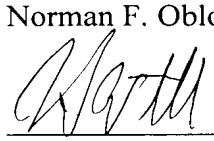

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